

CLAIMS

1. A metal oxide particle comprising a core part relatively rich in a first metal oxide and a surface layer relatively rich in a second metal oxide, said core part and said surface layer each comprising a plurality of primary particles, and the primary particle diameter of said second metal oxide being smaller than the primary particle diameter of said first metal oxide.

2. The metal oxide particle according to claim 1, wherein said first metal oxide is zirconia and said second metal oxide is ceria.

3. The metal oxide particle according to claim 2, wherein the metal oxide particle has a particle diameter of 2.3 to 8.1 μm .

4. The metal oxide particle according to claim 2 or 3, wherein the primary particle diameter of zirconia constituting said core part is 100 nm or less.

5. An exhaust gas purifying catalyst comprising a noble metal supported on the metal oxide particle according to any one of claims 2 to 4.

6. A process for producing a metal oxide particle, comprising:

providing a sol containing at least a population of first metal oxide colloid particles and a population of second metal oxide colloid particles differing in the isoelectric point with each other, the particle diameter of said population of second metal oxide colloid particles being smaller than the particle diameter of said population of first metal oxide colloid particles,

adjusting the pH of said sol to be closer to the isoelectric point of said population of first metal oxide colloid particles than to the isoelectric point of said population of second metal oxide colloid particles, thereby aggregating said population of first metal oxide colloid particles,

adjusting the pH of said sol to be closer

to the isoelectric point of said population of second metal oxide colloid particles than to the isoelectric point of said population of first metal oxide colloid particles, thereby aggregating said population of second
5 metal oxide colloid particles onto said population of first metal oxide colloid particles aggregated, and
drying and firing the obtained aggregate.